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February 27, 2019

Ms. Marlene Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> St. SW  
Washington, DC 20554

Re: EX PARTE NOTICE  
WT Docket 17-200  
Review of the Commission's Rules for the  
896-901/935-940 MHz Band

Dear Ms. Dortch:

This letter will summarize the substance of a meeting held yesterday with Nicholas Degani of Chairman Pai's office regarding the above-referenced Docket. Present at the meeting was the undersigned and, representing Southern California Edison (SCE), Amy Pressler. Participating by phone for SCE were Jeff Gooding, John Bubb, and Carlos Carazo.

The SCE representatives explained that SCE is a large electrical utility company in Southern California serving over 15 million customers. It has been beset in recent years by increasing threats to the integrity of its networks by wildfires. It was explained that the network management functions needed to detect wildfires at their very inception and to maintain a network secure from hacking would require critical infrastructure entities to have access to their own broadband channel. While the reforms proposed in this docket would potentially create a contiguous band of sufficient size to meet these immediate needs, the proposed NPRM failed to include a mechanism for quickly relocating incumbents. It effectively would confine the incumbents to the current 900 MHz band and would entrench the largest current license holder in the band to the detriment of other potential broadband licensees, thus complicating the problem of clearing the band.

As a solution to this problem, SCE requested that the NPRM be modified to include consideration of the reallocation of another available band to handle the offloading of incumbents. The 1.4 GHz band and the 2020-2025 MHz band were suggested as a possible, but not all inclusive, candidates. SCE also suggested that the 900 MHz band be restricted for use of critical infrastructure entities. Mr. Degani expressed reservations about both of these proposals but did indicate that other aspects of the reorganization of the band proposed in the NPRM were open to

February 27, 2019

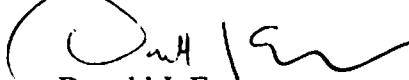
Page 2

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comment from the public. Proposals to improve the plan to better meet the stated needs of SCE would be welcome.

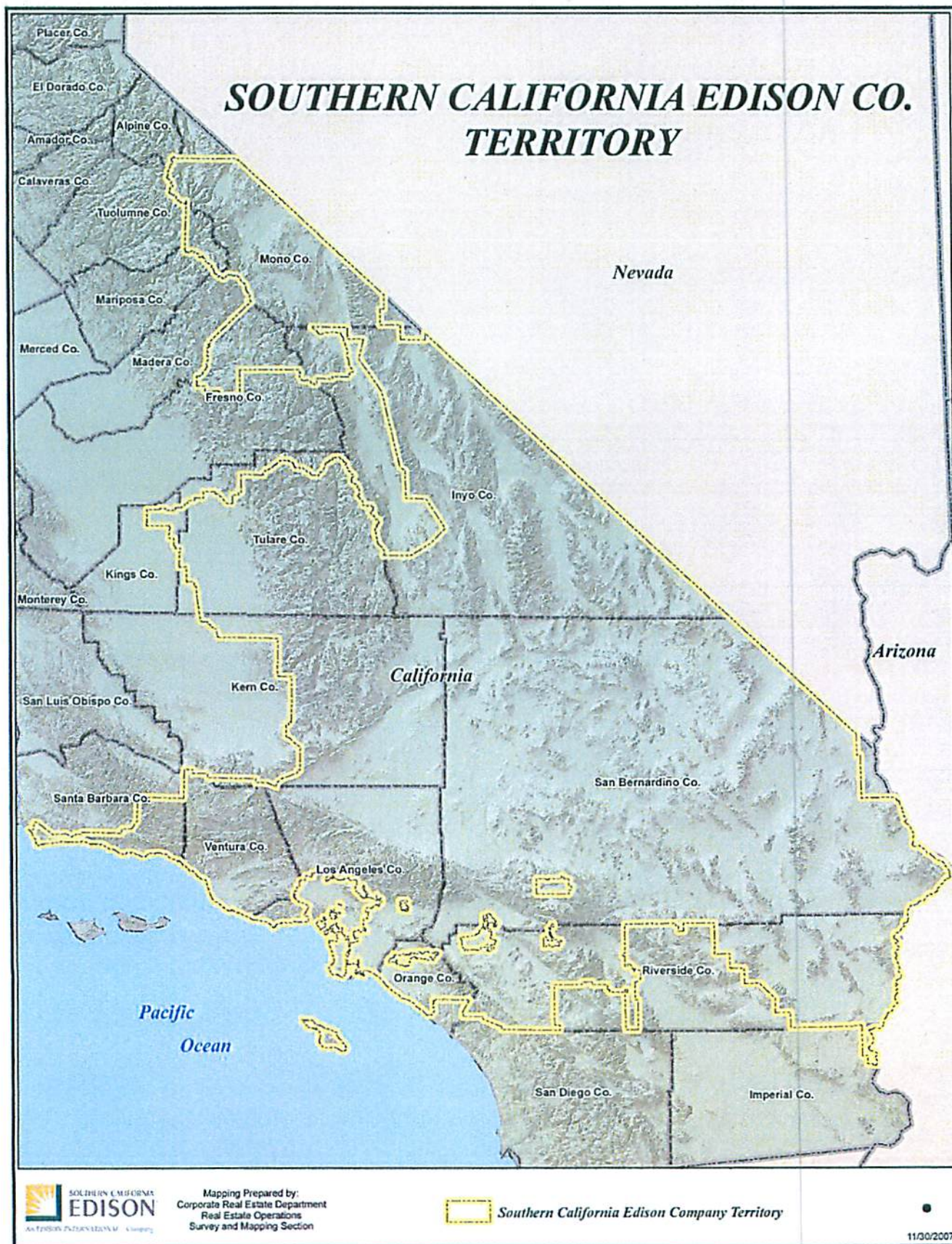
Mr. Degani was shown and reviewed the Ex Parte filing submitted by SCE on February 22, a map of SCE's service area, and proposed language to be added to the NPRM (all attached hereto).

Respectfully,

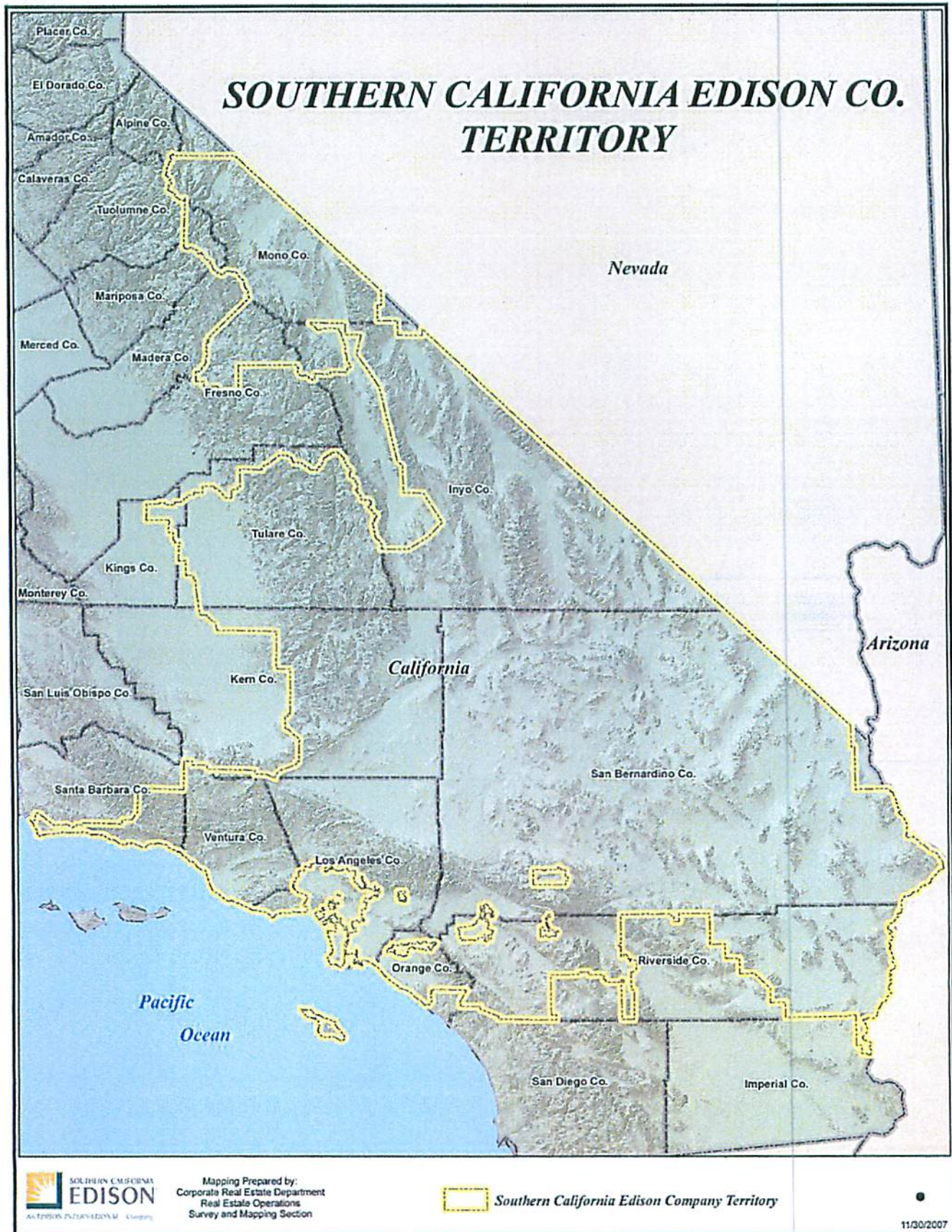


Donald J. Evans

cc: Nicholas Degani  
(Attachments)











Ms. Marlene Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> St. SW  
Washington, DC 20554

February 22, 2019

Re: EX PARTE FILING  
WT Docket 17-200  
Review of the Commission's Rules for the  
896-901/935-940 MHz Band

Dear Ms. Dortch:

This written ex parte submission is made by Southern California Edison ("SCE"). SCE is one of the largest electric utilities in the United States, providing service to most of the south-central region of California which includes some 15 million residential and industrial customers across 50,000 square miles. These customers depend on SCE to deliver electrical service to them safely, securely and reliably.

SCE currently holds 100 licenses in the 900 MHz band which it actively employs to provide both secure internal voice communications and data communications in support of its various operations in the region. It has therefore followed with interest the proceedings in this Notice of Inquiry and the Petition for Rulemaking which preceded it. As a critical infrastructure provider to millions of Californians, SCE shares the view expressed by many commenters to date that there is an urgent need for improved and expanded telecommunications resources to ensure the reliability, security and safety of the nation's electrical utility infrastructure. Just in the past few months, SCE and thousands of its customers experienced the Woolsey wild fire in the Ventura County – Los Angeles region that consumed nearly 100,000 acres of land area and destroyed millions of dollars' worth of property. The Camp Fire in northern California simultaneously wreaked devastating damage to a large swath of northern California and took many lives. In fact, 10 of the 20 most destructive wildfires in California have happened since 2015. Wildfires like these present an immediate and public threat to California. Broadband visual and data monitoring of electrical facilities in remote locations is critical to mitigate electric infrastructure ignition risk and ensure fire events are detected immediately and extinguished before they grow into major public safety events.

At the same time, utilities are coming under increasing threats from hackers and malicious agents of hostile states. As network management functions become more and more digitized, it becomes increasingly important that utilities like SCE maintain a communications

network that is impervious to the kind of electronic intrusions that third party networks are susceptible to. High level security of the network against outside manipulation is essential to reliable operations, and that level of security can only be achieved by a closely owned, controlled and protected network structure.

SCE believes that the specialized needs of the electric utility industry in general, and SCE in particular, require the availability of significant dedicated broadband capacity for this purpose. The highly fractionalized channel allocation which currently governs the 900 MHz band will not be adequate for the special challenges posed by 21<sup>st</sup> century climate conditions and security threats. For that reason, SCE supports the initiative begun by pdvWireless to restructure the 900 MHz band to enable broadband capability. However, SCE shares most of the concerns which have been raised by the Critical Infrastructure Coalition (“CIC”) regarding the potential costs and interference effects of adopting the pdvWireless proposal.<sup>1</sup> There are compelling alternatives to the pdvWireless plan which SCE believes may better – and more quickly – serve the needs of the utility industry and the public they serve.

To this end, SCE suggests that, if the Commission issues a Notice of Proposed Rulemaking on this matter, it should not restrict itself to the narrow rebanding plan proposed by pdvWireless but should also include consideration of the following alternatives to that plan. These alternatives, by allowing flexible geographic and spectrum consolidation, will not only eliminate potential interference between narrowband and broadband operations but will also permit considerably faster aggregation of the broadband portion of the band into a useful breadth. It will also allow utilities themselves to acquire, manage and operate their own broadband networks. Utilities in each region can configure the spectrum to best meet the needs of their local communities whose lives and livelihoods depend on it. Because pdvWireless has no obligation to provide spectrum to any particular utility or any utility at all, making pdvWireless the *de facto* sole source that utilities must turn to for 900 MHz broadband access in major markets effectively strips the utilities of assured access to vital spectrum.

1. Permit broadband aggregation that takes into account on an MTA-by-MTA basis the geographic particulars of each region

The pdvWireless channel plan presents a “one-size-fits-all” solution to the channel reallocation problem. In fact, a map of the current channel assignment and utilization would show wide variations in different regions of the country based on each utility’s network implementation plans. There is no reason to adhere to a fixed nationwide division of narrowband and broadband spectrum when a more flexible approach would simplify and expedite the redistribution of narrowband and broadband channels by recognizing and accommodating the current circumstances in each region. If narrowband channel licensees are now primarily located in one part of the region, for example, that usage could be accommodated by placing the broadband assignment on the other side of the region, thus minimizing the number of channel changes that might be required. Making broadband channel assignments on an MTA basis would be the most efficient way to approach the reassignment issue. Of course, there would also

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<sup>1</sup> See, e.g., Letter from Bryan N. Tramont and Timothy J. Cooney, Counsel to CIC, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-200 (Oct. 26, 2018).

have to be coordination of the narrowband/broadband allocations at the borders of each MTA, just as such coordination to prevent interference is now required of regional CMRS carriers at the borders of their service areas. That coordination process works very effectively to allow the operators on both sides of the borders to use their authorized spectrum without interference. The same process would work here.

2. Permit aggregation into broadband segments that are a minimum of 1.4 MHz wide wherever in the band such an aggregation can best be accomplished

PdvWireless's one-size-fits-all approach also applies to the size of the proposed broadband spectrum authorization. Here too a more flexible approach would speed the availability of broadband for critical utility applications. PdvWireless's proposal contemplates a 3 MHz broadband allocation and nothing less than that. However, LTE architecture accommodates broadband service with a bandwidth of 1.4 MHz. Aggregation of that smaller quantum of narrowband channels in the near term is much more feasible because not all existing equipment deployments can be quickly transitioned. SCE therefore recommends that the Commission consider authorizing both 1.4 MHz and 3 MHz-wide broadband assignments which can be deployed by utilities in the nearer term to satisfy at least a portion of their immediate broadband needs. Over time, the 1.4 MHz broadband assignment could be expanded to 3 MHz and potentially even 5 MHz in the longer term as technology-enabled capabilities necessary to serve public safety and critical infrastructure protection needs increase. Any remaining licenses still in operation would need to be relocated at the expense of the broadband spectrum license holder.

3. If incumbent licensees are not able to agree on an aggregation plan, the Commission should authorize an auction of 3 contiguous MHz of the 900 MHz band open only to utilities. Non-utility licensees with significant 900 MHz holdings would be relocated to a comparable 3 MHz-wide (or larger) spectrum band which would be available for flexible spectrum use.

PdvWireless recognizes the possibility that the necessary aggregation of now separately owned 900 MHz band licenses may not be accomplished by voluntary negotiation. It therefore proposes an overlay auction which would give the auction winner the right to a 3 MHz-wide license and the authority to move recalcitrant incumbent licensees out of the band.<sup>2</sup> SCE too recognizes that the required aggregation may not be achieved through negotiation, but its alternative solution to that problem is to free up 900 MHz space by relocating non-utility licensees like pdvWireless to a different but comparable part of the FCC's spectrum inventory.

The Commission and the courts have recognized that the Commission has ample authority under the Communications Act to modify the licenses of incumbents by moving them to other comparable spectrum with similar operational rights. Indeed, in the recently announced Incentive Auction Notice for the 39 GHz band, the Commission adopted procedures to clear

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<sup>2</sup> See Further Comments of the Enterprise Wireless Alliance and pdvWireless, WT Docket 17-200, at 22 (May 1, 2018).

unwilling incumbents from the auctioned band by paying them off or relocating them. *Use of Spectrum bands Above 24 GHz for Mobile Radio Services*, DA-18-180, rel. December 18, 2018. There is no need to delve into the precise details here, but the Commission can clearly relocate pdvWireless from the band by similar or comparable means. This would permit eligible utilities to purchase 3 MHz of the 900 MHz spectrum at auction for market value while leaving sufficient space in the 2 MHz narrowband segment of the band for relocation of smaller utility incumbents who do not desire broadband capacity. The result would quickly address the immediate needs of utilities for broadband and would also be fair to pdvWireless, who would receive spectrum resources or money at least as valuable and useful as the band in which its licenses are now situated. This spectrum clearing process would be faster by at least a year or two than the period of protracted negotiations followed by an auction as posited by pdvWireless. As all agree, the perils faced by electric utilities at this moment call for swift remedial action. We must also observe that the pdvWireless' plan, while couched in terms of the benefits it would provide to critical infrastructure service providers, does not in any way commit pdvWireless to lease its 3 MHz of broadband spectrum to such providers either exclusively or at all. The Commission should therefore consider the instant proposal as an appealing alternative to the plan propounded by pdvWireless.

4. As an alternative, or in addition to, the alternatives outlined above, the Commission should allocate up to 5 MHz of available comparable spectrum to be auctioned for broadband use by critical infrastructure entities.

An alternative to relocating pdvWireless to a different band would be to make a similar band available for broadband usage by electric utilities. The record of this proceeding to date strongly demonstrates a need to make broadband capacity available for these utilities as quickly as possible. A reallocation of small LTE-standardized 5 MHz spectrum band, would satisfy this need relatively quickly. The Commission could quickly auction that band to utilities in 1.4 MHz and 3 MHz sizes, permitting not only immediate deployment of broadband technology but also facilitating the clearing of some of the 900 MHz band that would no longer be necessary. This solution, like the one explained in Item 3 above, obviates the need for utilities to be dependent on the vagaries of a non-utility third-party licensee for access to essential spectrum resources.



The suggestions set forth above propose solutions to some of the issues which have arisen in the course of the NOI. These alternatives would simplify and expedite the process of making broadband spectrum available to utilities by applying a flexible geographic and spectrum use approach to clearing and consolidating operations in the current 900 MHz band. They would also ensure that the utilities themselves securely and permanently control access to and use of the spectrum that will form the foundation for next-generation utility resource management. SCE therefore strongly urges the Commission to include consideration of these alternatives in any NPRM which is adopted in this matter.

Respectfully submitted,

Southern California Edison

By /s/ Todd Inlander  
Sr. Vice President, CIO  
Southern California Edison

Cc: (via hand delivery) Chairman Ajit Pai  
Commissioner Michael O'Reilly  
Commissioner Brendan Carr  
Commissioner Jessica Rosenworcel  
Commissioner Geoffrey Starks

(via email)

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## **SUGGESTED INSERT IN DOCKET 17-200 NPRM**

### **Possible insertion after para. 20 of Draft NPRM**

Given the demand for capacity to meet the broadband needs of critical infrastructure licensees, we also seek comment on whether the reorganization of the 900 MHz band as described above will be adequate to satisfy both that demand and the need to accommodate the relocation of incumbent licensees. Would it speed and simplify the reorganization and transition processes to allocate from the Commission's inventory an additional 5 MHz of spectrum, as a place to relocate incumbents, foster continued critical infrastructure operations in the 900 MHz band, and/or provide additional broadband capacity for critical infrastructure in the future? "Orphaned" bands too small for typical commercial wireless usage such as the former TerreStar spectrum at 1390 MHz to 1395 MHz might be suitable for this purpose. Commenters who advocate such a reallocation should identify potential bands and set forth the benefits to be realized from such a reallocation.